REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

The specification has been amended for clarity. No new matter is believed to be introduced by the amendment of the specification.

Claims 1-3, 5, and 8 have been canceled, and claims 4, 6, 7, 9, and 10 have been amended. Support for the amendments is provided for example in original claims 5 and 8. The amendments were not presented earlier due to the unforeseeability of the remarks presented in the Final Rejection.

Claim 4 was rejected, under 35 USC § 103(a), as being unpatentable over Yamada et al. (US 2005/0129137) in view of Miyata et al. (US 2004/0022205). Claims 5-10 were rejected, under 35 USC § 103(a), as being unpatentable over Yamada in view of Miyata and Mills et al. (US 6,704,376). To the extent that these rejections may be deemed applicable to the amended claims presented herein, the Applicants respectfully traverse based on the points set forth below.

Claim 4 now recites features of original claim 5 and defines a transmitting/receiving apparatus that: (1) measures a time to generate a transmitting weight; (2) multiplies a transmission signal by the generated transmitting weight when the time to generate the transmission weight is less than a predetermined time; and (3) multiplies the transmission signal by "1" as a transmitting weight when the time to generate the transmission weight is equal to or greater than the predetermined time. The claimed subject matter provides an advantage of preventing the deterioration of transmission efficiency of space-division multiplexing (SDM) communication, with directivity control, caused by a difference between the propagation path

environments upon channel estimation and transmission (see published specification paragraphs [0084] and [0091]). More specifically, the claimed subject matter employs a generated transmitting weight when the time to generate the transmission weight is less than a predetermined time and otherwise may use a default transmitting weight, so as to avoid a long time delay in generating the transmitting weight during which the propagation environment may change. (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

The Final Rejection acknowledges that Yamada does not disclose the Applicants' claimed subject matter of selecting either a generated transmitting weight or a default transmitting weight for weighting a transmission signal (see Final Rejection section 4, line 15, through page 5, line 1). To overcome this deficiency, the Final Rejection proposes that Miyata discloses, in paragraph [0020], determining whether to perform space-division multiple access (SDMA) communication when the difference between an ideal directivity pattern and an actual directivity pattern is not larger than a predetermined value (see page 5, lines 2-6).

Thus, Miyata is cited for the disclosure of determining whether to perform SDMA communication when the difference between an ideal and actual directivity pattern is not larger than a predetermined value, whereas Applicants' claim 4 recites: (1) multiplying a transmission signal by a generated transmitting weight when the time to generate the transmission weight is less than a predetermined time and (2) multiplying the transmission signal by "1" as a transmitting weight when the time to generate the transmission weight is equal to or greater than

the predetermined time. Neither Yamada nor Miyata disclose this subject matter of Applicants' claim 4.

Mills is cited in the Final Rejection for the disclosure, in column 2, line 65, through column 3, line 2, of detecting a received bit value of "0" when a received signal has a high positive correlation with a known signal and detecting a received bit value of "1" when the correlation is highly negative (see Final Rejection page 6, lines 11-15).

Thus, Mills does not supplement the teachings of Yamada and Miyata with regard to the Applicants' claimed subject matter of: (1) multiplying a transmission signal by a generated transmitting weight when the time to generate the transmission weight is less than a predetermined time and (2) multiplying the transmission signal by "1" as a transmitting weight when the time to generate the transmission weight is equal to or greater than the predetermined time.

Although the Final Rejection proposes that Yamada discloses, in paragraph [0250], restraining the degradation of transmission characteristics by using feedback channel information and weight generation timing information (see Final Rejection section 6, lines 2-6), this subject matter is not the same as that recited in Applicants' claim 4. More specifically, Yamada discloses adjusting a channel estimation based on a feedback delay time and generating a transmission weight based on the adjusted channel estimation (see Yamada paragraphs [0094] and [0244]-[0245]). Applicants' claim 4 recites applying either a "1" or a generated transmitting weight based on a time required to generate the transmitting weight, whereas Yamada discloses generating a transmission weight based on a feedback delay.

Accordingly, the Applicants submit that even if the teachings of Yamada, Miyata and Mills were combined as proposed in the Final Rejection, the combination still would lack the above-noted subject matter of claim 4, and thus, these references, considered individually or in combination, do not render obvious claim 4. Independent claim 10 similarly recites the above-mentioned subject matter distinguishing apparatus claim 4 from the applied references, but does so with respect to a method. Therefore, allowance of claims 4 and 10 is considered to be warranted.

Independent claims 6 and 9 now recite multiplying a transmission signal by a received transmitting weight when a measured receiving time for receiving the transmitting weight is less than a predetermined time and multiplying the transmission signal by transmitting weight of "1" when the measured receiving time for the transmitting weight equals or exceeds the predetermined time. For reasons similar to those discussed in connection with Applicants' claim 4, Yamada, Miyata and Mills do not disclose this subject matter of claims 6 and 9.

Accordingly, the Applicants submit that Yamada, Miyata and Mills, even if combined as proposed in the pending office action, would nevertheless lack the above-noted features of claims 6 and 9, and thus, these references, considered individually or in combination, do not render obvious these claims. Therefore, allowance of claims 6 and 9 and dependent claim 7 is deemed to be warranted.

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

/James Edward Ledbetter/

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JEL/DWW/att

James E. Ledbetter
Registration No. 28,732

Attorney Docket No. 009289-06171
Dickinson Wright PLLC
1875 Eye Street, NW, Suite 1200
Washington, DC 20006
Telephone: (202) 659-6966
Facsimile: (202) 659-1559